

CENTRAL INTELLIGENCE AGENCY

INFORMATION REPORT

This Document contains information affecting the National Defense of the United States, within the meaning of Title 18, Sections 793 and 794, of the U.S. Code, as amended. Its transmission or revelation of its contents to or receipt by an unauthorized person is prohibited by law. The reproduction of this form is prohibited.

SECRET
SECURITY INFORMATION

25X1

COUNTRY	USSR (Moscow Oblast)	REPORT	
SUBJECT	Test Equipment Used at Monino	DATE DISTR.	11 June 1953
DATE OF INFO.		NO. OF PAGES	3
PLACE ACQUIRED		REQUIREMENT NO.	RD
		REFERENCES	25X1

THE SOURCE EVALUATIONS IN THIS REPORT ARE DEFINITIVE.
THE APPRAISAL OF CONTENT IS TENTATIVE.
(FOR KEY SEE REVERSE)

25X1

EQUIPMENT MANUFACTURED AT SACHSENWERK RADEBERG

1. In the Monino office, measuring instruments produced by the Pribor Soviet A. G., Radeberg (Saxony), were used in only one instance. During 1949-1950 [] asked for a standard signal generator for a wavelength of about 10 cm to gauge the rocket receiver (aircraft aerial plus aircraft receiver), but in vain. No apparatus of this kind was made available at all. Instead, [] were offered a test oscillator from Pribor/Radeberg; [] declined it, since the frequency range was not what [] needed (2700 Mc/s). 25X1
2. In the period of August - December 1951 [] were given a test oscillator from Pribor/Radeberg for measuring a VHF mixer section. [] the apparatus had a frequency range of about 1600 Mc/s-2500 Mc/s. The apparatus consisted of three wooden cases; one contained the test oscillator, the second contained the power unit, and the third contained a fan for cooling the oscillator (flexible air pipe about 50 mm in diameter). Operation of the apparatus was characterized by a terrible noise from the fan, so that listening tests (detection of heterodyne points) could not be carried out near the test oscillator. In order that work could go on, the fan and oscillator were put up in the corridor, and the measuring current led through a wall. 25X1

25 YEAR RE-REVIEW

SECRET

25X1

STATE	#X	ARMY	#X	NAVY	#X	AIR Ev	#X	FBI		AEC				
-------	----	------	----	------	----	--------	----	-----	--	-----	--	--	--	--

(Note: Washington Distribution Indicated By "X"; Field Distribution By "#".)

SECRET

-2-

25X1

3. From the negotiations with the department in charge of measuring equipment belonging to Institute 885 it may be concluded that a number of items from Pribor/Radeberg with various test ranges were available.

APPARATUS FOR TESTING THE FOLLOW-UP ACCURACY OF THE AERIAL CONTROL GEAR FOR ROCKETS.

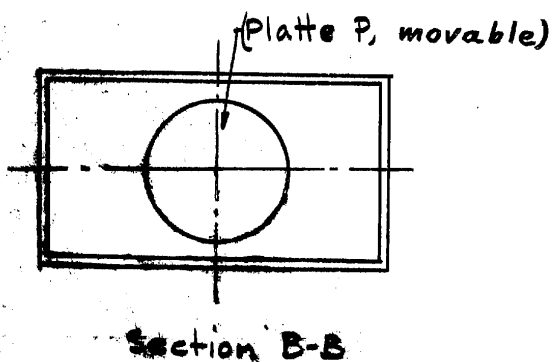
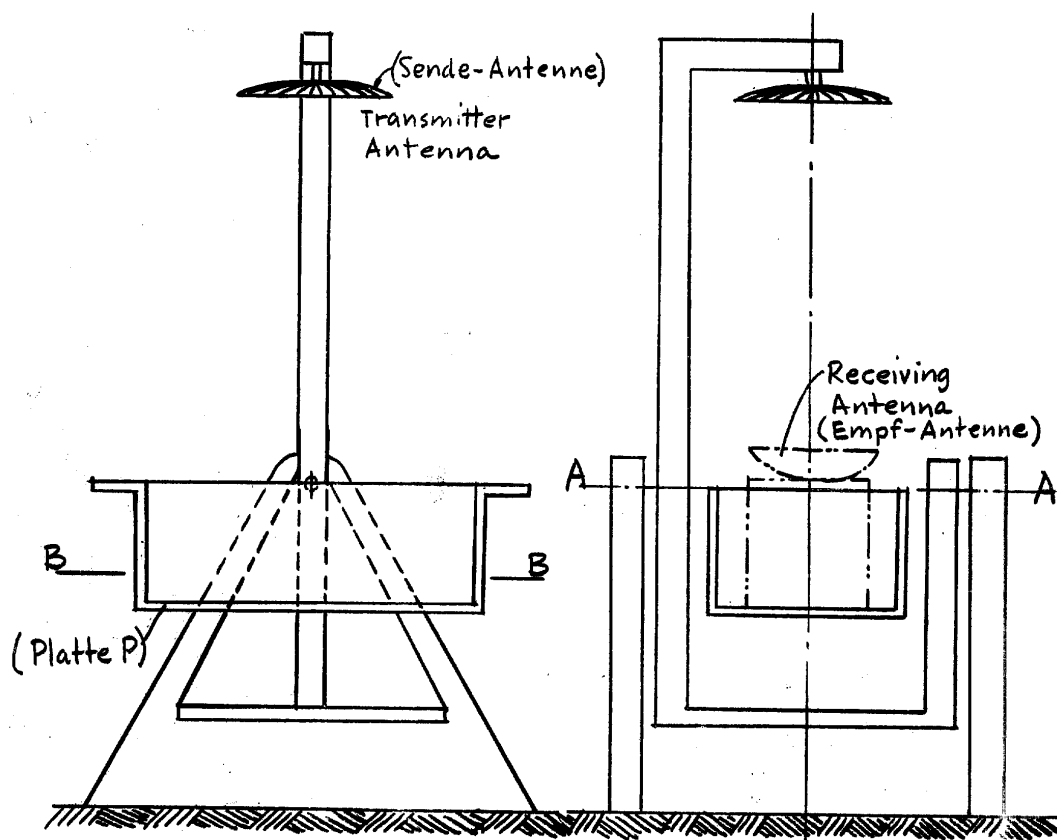
4. In the summer of 1951 the following test apparatus was developed for the purpose stated above: See sketch on page 3.
- a. A wooden frame about 4 m. in length was mounted to turn about the axis A - A. At the upper end there is a transmitting aerial (dipole for reproducing the reflection of the radar impulse); the lower end carried counterweights, by the selection of which the pendulum movement of the frame around the axis A - A can be set to any desired oscillation constants.
- b. The plate P enables the rocket head to be fixed at a height which produces coincidence of the rocket aerial slewing axis with the axis A - A. The plate P can be turned about the vertical axis, so that the outer or inner Cardan axis of the rocket head can be brought into the axis A - A and its function tested in any intermediate position.
- c. The suspension of plate P can likewise be freely moved around A - A, and can be made to oscillate by its own counterweights; these oscillations can, for example, correspond to those of the rocket itself.
- d. In the special instance where A - A coincides with the outer Cardan axis of the head arrangement, mechanical indicators mounted to the one side on the frame and to the other on the axis of the rocket aerial can indicate, from their difference in angle and their correlation, the size and phase of the follow-up error in the reception antenna.
- e. For operating the transmitting phantom, an electric generator (with pulse generator) was constructed for producing an impulse variable in length and amplitude (1 ... 10/sec length, impulse train in 1707 c/s) for 2750 ... 2950 Mc/s, in order to reproduce the radar SCR 584 reception. An attenuator enabled the impulse sent out to be reduced, in accordance with the attenuation conditions imposed by the aircraft and the range flying, to 30 km.

SECRET

SECRET

-3-

25X1



Apparatus for Testing the FOLLOW-UP ACCURACY
of the AERIAL CONTROL GEAR for ROCKETS

SECRET

14-2 136